

What is claimed is:

1. An electronic circuit comprising:

5 a controller for processing a processor task;

an energy determination means for determining the energy
available to the controller; and

10 a control means (for controlling the controller depending on
the energy available to the controller.

2. The electronic circuit as claimed in claim 1, wherein the
15 control means is arranged so as to control the controller
such that an energy required by the controller for the
processor task is essentially equal to the energy available
to the controller.

20 3. The electronic circuit as claimed in claim 1, further
comprising:

25 an energy provision means for producing the energy available
to the controller from electromagnetic energy supplied
externally.

4. The electronic circuit as claimed in claim 1, which is
designed as an integrated circuit suitable for an application
with contact-less terminals.

30 5. The electronic circuit as claimed in claim 1, wherein the
control means comprises:

a means for setting the controller clock with which the controller is operated, wherein a clock rate of the controller clock is increased when there is more energy available and decreased when there is less energy available.

5 6. The electronic circuit as claimed in claim 1, wherein the controller is implemented in CMOS technology.

10 7. The electronic circuit as claimed in claim 1, wherein the controller comprises:

 a plurality of peripheral devices for performing associated tasks; and

15 a central processing unit for driving the plurality of peripheral devices,

20 wherein the control means is arranged so as to control the plurality of peripheral devices depending on the processor task, the associated tasks and the energy available to the controller.

25 8. The electronic circuit as claimed in claim 7, wherein the control means is arranged so as to control the peripheral devices such that the computing time required for the performance of the processor task by the controller is minimized.

30 9. The electronic circuit as claimed in claim 7, wherein the controller is a cryptography processor, and the plurality of peripheral devices are cryptocoprocessors for performing computing tasks, and wherein the processor task is selected from a group consisting of an encryption, a decryption, an

authentication and a signature according to the DES standard, the AES method, the RSA algorithm and the elliptic-curve method, and wherein the computing tasks of the plurality of cryptocoprocessors are selected from a group including a modular and non-modular addition, multiplication, exponentiation and inversion, a hash-value calculation and a random number determination.

5 10. The electronic circuit as claimed in claim 7, wherein

10 10 the control means further comprises:

a means for setting the peripheral device clocks with which the plurality of peripheral devices are operated; and

15 15 a means for switching off individual peripheral devices of the plurality of peripheral devices.

11. The electronic circuit as claimed in claim 10, wherein the means for setting the peripheral device clocks comprises 20 an oscillator associated with one of the plurality of peripheral devices and producing a clock signal with an output clock frequency with which the associated peripheral device is clocked.

25 12. The electronic device as claimed in claim 10, wherein the means for setting the peripheral device clocks comprises a clock multiplier associated with one of the plurality of peripheral devices and producing a clock signal with an output clock frequency with which the associated peripheral 30 device is clocked.

13. The electronic circuit as claimed in claim 1, wherein the controller comprises a peripheral device for performing

an associated task, and a central processing unit for driving
the peripheral device, and wherein the control means
comprises a first means for setting a first clock with which
the central processing unit is operated, and a second means
for setting a second clock with which the peripheral device
is operated, the first and second clocks being set such that
the energy available suffices for processing the processor
task and that, at the same time, the peripheral device is
assigned a maximum energy possible for performing the
associated task.

14. A method for controlling an electronic circuit
comprising a controller for processing a processor task, the
method comprising:

15 determining the energy available to the controller; and
controlling the controller depending on the energy available
to the controller.